(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



10/5428*3*U

(43) International Publication Date 12 August 2004 (12.08.2004)

PCT

(10) International Publication Number WO 2004/068909 A 1

(51) International Patent Classification7:

H05B 33/00

(21) International Application Number:

PCT/JP2003/016428

(22) International Filing Date:

22 December 2003 (22.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

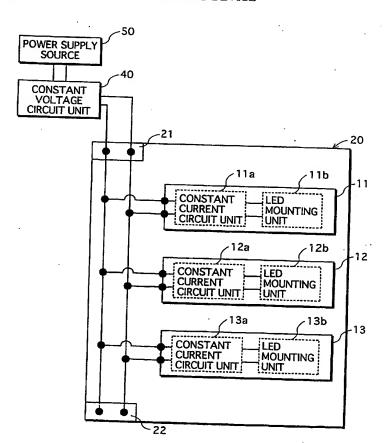
(30) Priority Data:
NO. 2003-017906
NO. 2003-277052

(71) Applicant (for all designated States except US): MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oazakadoma, Kadoma-shi, Osaka 571-8501 (JP). (72) Inventors; and

- (75) Inventors/Applicants (for US only): SETOMOTO, Tatsumi [JP/JP]; AlubaTakatsuki 403, Kamihamuro, Takatsuki-shi, Osaka 569-1044 (JP). MATSUI, Nobuyuki [JP/JP]; 1-44-9-A401, Tsunoe-cho, Takatsuki-shi, Osaka 569-0822 (JP). TAMURA, Tetsushi [JP/JP]; 2-8-509, Saiwai-cho, Takatsuki-shi, Osaka 569-1143 (JP). TANI-MOTO, Noriyasu [JP/JP]; 2-8-401, Saiwai-cho, Takatsuki-shi, Osaka 569-1143 (JP). SHIMIZU, Masanori [JP/JP]; 48-3-4-618, Mibuboujo-cho, Nakagyo-ku, Kyoto-shi, Kyoto 604-8804 (JP).
- (74) Agent: NAKAJIMA, Shiro; 6F, Yodogawa 5-Bankan, 2-1, Toyosaki 3-chome, Kita-ku, Osaka-shi, Osaka 531-0072 (JP).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR,

[Continued on next page]

(54) Title: MULTICHIP LED LIGHTING DEVICE



(57) Abstract: In a module socket, a connecter and a connector are connected by wiring, and three LED modules are connected in parallel with respect to a constant voltage circuit unit via the wiring. Each module has a constant current circuit unit and an LED mounting unit. The constant current circuit unit includes one resistor and two transistors mounted on a surface of a sub-substrate on which a conductive land is formed. The sub-substrate is bonded to a main substrate.